

We claim:

1. A pharmaceutical composition for oral administration comprising

a) a magnesium component comprising magnesium or a magnesium compound and

a release-controlling agent which substantially prevents release of magnesium until passage out

5 of the stomach and into the intestine of the host;

b) an interactive agent component comprising an agent which interacts with said host to affect bio-uptake of said magnesium; and

wherein substantially all of said interactive agent is released before passage into said intestine of said host.

10 2. A pharmaceutical composition according to Claim 1, wherein said magnesium component further comprises an enteric coating having a pH dissolution point of from about 5 to about 8.

3. A pharmaceutical composition according to Claim 2, wherein said coating has a pH dissolution point of from about 6.5 to about 7.2.

15 4. A pharmaceutical composition according to Claim 1, wherein said interactive agent component comprises calcium or phosphate.

5. A pharmaceutical composition according to Claim 4, wherein the ratio of calcium to magnesium is from 1:5 to 5:1.

6. A pharmaceutical composition according to Claim 5, wherein the ratio of calcium to magnesium is from 2:1 to 3:1.

7. A pharmaceutical composition according to Claim 2, wherein said enteric coating is applied by contacting said composition with an aqueous suspension or an organic solvent.

5 8. A pharmaceutical composition according to Claim 7, wherein said polymer is selected from the group consisting of hydroxypropyl methylcellulose phthalate ("HPMCP") and a methacrylic acid copolymer.

9. A pharmaceutical composition according to Claim 7, wherein said aqueous suspension is polyvinylacetate phthalate or cellulose acetate phthalate or a mixture thereof in combination with a plasticizing agent.

10. A pharmaceutical composition according to Claim 1, wherein said magnesium component of said composition is one of a core, a layer or granules, and wherein said magnesium component comprises an enteric coating having a pH dissolution point of from about 6.5 to about 7.2.

15 11. A pharmaceutical composition according to Claim 10, wherein said magnesium compound is selected from the group consisting of magnesium citrate, magnesium gluconate, magnesium oxide, magnesium carbonate, magnesium hydroxide, magnesium sulfate, magnesium phosphate, magnesium aspartate and combinations thereof.

12. A pharmaceutical composition according to Claim 11, wherein said composition is in a unit dosage form selected from the group consisting of a direct compression tablet, a hard shell capsule, a layered tablet or a dry coated tablet.

13. A pharmaceutical composition according to Claim 4, wherein said calcium is present as one of calcium carbonate, calcium citrate, calcium propionate, calcium gluconate, calcium sulfate, calcium ascorbate or combinations thereof.

14. A pharmaceutical composition for oral administration comprising:

a) a magnesium component comprising magnesium or a magnesium compound selected from the group consisting of magnesium citrate, magnesium gluconate, magnesium oxide, magnesium carbonate, magnesium hydroxide, magnesium sulfate, magnesium phosphate, magnesium aspartate and combinations thereof, wherein said magnesium component has a pH sensitive enteric polymer coating having a pH dissolution point of from about 6.5 to about 7.2; and

b) an interactive agent component comprising calcium or a calcium compound selected from the group consisting of calcium carbonate, calcium citrate, calcium propionate, calcium gluconate, calcium sulfate, calcium ascorbate and combinations thereof;

wherein the ratio of calcium to magnesium is from 1:5 to 5:1.

15. A method for delivering to a host magnesium and an interactive agent comprising: ingesting a pharmaceutical composition comprising:

a) a magnesium component comprising magnesium or a magnesium compound selected from the group consisting of magnesium citrate, magnesium gluconate, magnesium oxide, magnesium carbonate, magnesium hydroxide, magnesium sulfate, magnesium phosphate, magnesium aspartate and combinations thereof, wherein said magnesium component has a pH sensitive enteric polymer coating having a pH dissolution point of from about 6.5 to about 7.2;
5 and

b) an interactive agent component comprising an agent which interacts with said host to affect bio-uptake of said magnesium;

wherein substantially all of said interactive agent component is released before passage into said intestine of said host and substantially all of said magnesium component is released after passage out of the stomach and into the intestine of the host.

16. A method for delivering to a host magnesium and an interactive agent according to Claim 15, wherein said interactive agent component comprises calcium or phosphate.

17. A method for delivering to a host magnesium and an interactive agent according to Claim 16, wherein the ratio of calcium to magnesium is from 1:5 to 5:1.
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18. A method for delivering to a host magnesium and an interactive agent according to Claim 16, wherein said calcium is present as one of calcium carbonate, calcium citrate, calcium propionate, calcium gluconate, calcium sulfate or calcium ascorbate.